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EXAMINER

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Paper No. 19

Serial Number: 09/041,416  
Filing Date: March 12, 1998  
Appellant(s): Schuster et al.

**MAILED**

AUG 1 2000

**GROUP 2200**

Klaus P. Stoffel  
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's Brief on appeal filed 06/27/00.

**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the Brief.

**(2) Related Appeals and Interferences**

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the Brief.

**(3) Status of Claims**

The statement of the status of the claims contained in the Brief is correct.

This appeal involves claims 1 - 10, 12 - 22, and 29.

Claims 11 and 23 - 28 have been cancelled.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after Final Rejection contained in the Brief is correct.

The amendment after Final Rejection filed on 06/27/00 has been entered. It is noted that applicant's proposed amendment to page 8 line 3 in the specification has not been entered because "remove" does not exist on this line and, furthermore, as instructed by applicant this amendment would not make sense. However, this amendment can be corrected at a later time, if necessary.

**(5) Summary of Invention**

The summary of invention contained in the Brief is correct.

**(6) Issues**

The appellant's statement of the issues in the Brief is correct. It is noted that appellant has omitted listing the reference to Calabrese et al. (US 4,705,696) but which is relied upon in the Final Rejection of the independent claim.

**(7) Grouping of Claims**

Appellant's Brief includes a statement that claims 1 - 10, 12 - 22 and 29 stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) ClaimsAppealed**

A substantially correct copy of appealed claims 1, 2, and 14 appear on pages A1 and A3 of the Appendix to the appellant's Brief. The minor errors are as follows: In claim 1 line 5 "multi-dipole" should be --multi-pole--, in claim 1 line 8 "for" should be --by--

in accordance with the amendment after Final Rejection filed on 06/27/00 which is now entered, in claim 2 line 3 "the" should be deleted, and in claim 14 line 1 "a" should be --A--.

**(9) Prior Art of Record**

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

| <u>NUMBER</u> | <u>NAME</u>      | <u>DATE</u> |
|---------------|------------------|-------------|
| EP 099,264    | Doyle            | 1/1984      |
| US 3,921,527  | Raschke et al.   | 11/1975     |
| US 4,705,696  | Calabrese et al. | 11/1987     |
| US 3,607,255  | Back             | 9/1971      |
| US 4,103,616  | Chu et al.       | 8/1978      |
| US 4,020,762  | Peterson         | 5/1977      |
| US 3,650,797  | Tomanek          | 3/1972      |

**(10) New Prior Art**

No new prior art has been applied in this examiner's answer.

**(11) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 1 - 10, 12 - 14, 19, 20, 22, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle (EP 099,264) in view Raschke et al. (US 3,921,527) and Calabrese et al. (US 4,705,696).**

Doyle teaches the method as recited with exception of charging the printing form, applying "liquid" toner particles, and erasing

the fixed toner particles after a printing process. Note that Doyle teaches on page 4 to electrostatically charge the toner to retain it on the form, as opposed to charging the form.

Raschke et al. teach the conventionality of charging the entire printing form, applying toner to the entire surface of the printing form, and erasing the fixed toner particles after a printing process. See the Abstract, column 3 lines 56 - 68, and column 5 lines 1 - 9 and 39 - 44 of Raschke et al.

Calabrese et al. teach the conventionality of applying and fixing liquid toner particles to a printing form. See the entire document of Calabrese et al.

It would have been obvious to one of ordinary skill in the art to provide the method of Doyle with the step of charging the printing form as an alternative to charging the toner and erasing the fixed toner to reuse the printing form in view of Raschke et al. and provide liquid toner particles in view of Calabrese et al. teaching the conventionality of such. The step of controlling the thickness of the toner would have been readily apparent to one skilled in the art. With respect to claim 22 it would have been obvious to one of ordinary skill in the art to supplement the solvent erasing step of Raschke et al. with a brush or cloth to facilitate removal of the fixed toner particles. With respect to claim 29 it would have been obvious to one of ordinary skill in the art to print with a negative or a positive of the image.

Claim 15 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Doyle in view of Raschke et al. and Calabrese et al. as applied to the claims above, and further in view of Back (US 3,607,255). Back teaches the conventionality of hydrophilizing the regions not covered by the toner. See the Abstract of Back, for example. It would have been obvious to one of ordinary skill in the art to provide the method of Doyle, as modified by Raschke et al. and Calabrese et al., with the step of hydrophilizing the regions not covered by toner in view of Back so as to provide an adequately hydrophilic surface on the printing plate.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle in view of Raschke et al. and Calabrese et al. as applied to the claims above, and further in view of Chu et al. (US 4,103,616). Chu et al. teaches the conventionality of crosslinking toner particles with UV radiation. See column 3 lines 2 - 23 of Chu et al. It is noted that lamps, including mercury, are conventional sources of UV radiation. It would have been obvious to one of ordinary skill in the art to provide the method of Doyle, as modified by Raschke et al. and Calabrese et al., with the step of crosslinking the toner particles with UV radiation in view of Chu et al. as an alternative to melting the toner particles with infrared radiation.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle in view of Raschke et al. and Calabrese et al. as applied to the claims above, and further in view of Peterson (US 4,020,762). Peterson teaches the conventionality of using a

light source to ablate a carbon material from a printing plate. Carbon is a conventional material in toners. See column 1 lines 35 - 50 of Peterson. It would have been obvious to one of ordinary skill in the art to provide the method of Doyle, as modified by Raschke et al. and Calabrese et al., with the step of ablating the toner in view of Peterson as an alternative toner removing step.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle in view of Raschke et al. and Calabrese et al. as applied to the claims above, and further in view of Tomanek (US 3,650,797). Tomanek teaches the conventionality of removing toner from a printing plate with an alkaline solution. See the Abstract of Tomanek, for example. It would have been obvious to one of ordinary skill in the art to provide the method of Doyle, as modified by Raschke et al. and Calabrese et al., with the step of removing the fixed toner with an alkaline solution in view of Tomanek as a well known alternative solvent.

***(12) New Ground of Rejection***

This examiner's answer does not contain any new ground of rejection.

***(13) Response to argument***

Appellant argues that none of the applied references teach controlling the thickness of the layer of liquid toner particles, that it would not have been obvious to utilize liquid toner particles as opposed to dry toner particles, and it would not have been obvious to remove the unfixed liquid toner particles with a

solvent as taught by Raschke et al.

The Examiner asserts that controlling the thickness of the liquid toner particles by controlling one of the voltage and time during the charging step would have been fundamentally obvious to one skilled in the art when toning the printing form. The thickness of the image portions would be directly related to the durability of the image portions and thus the length of the print run which is always of primary concern. As an example, Calabrese et al. teach in column 5 lines 57 - 66, in particular lines 63 - 64, that satisfactory toning of the form would depend upon factors such as the level of charge applied to the form. Accordingly, controlling the voltage so as to provide the desired toning thickness would have been obvious to one of ordinary skill in the art.

The alternative of using liquid, as opposed to dry, toner particles would appear to have been an obvious selection to one of ordinary skill in the art in view of the known advantages and disadvantages of each. While Calabrese et al. do not specifically teach the advantages of liquid toner over dry toner, it is nonetheless conventional in the art. In view of the fact that toners are either dry, or liquid, it is deemed that the selection of one over the other would have been obvious to one skilled in the art of toning printing forms. Furthermore, it is noted that appellant discloses on page 1 lines 11 - 12 in the specification the conventionality of the prior art alternatively using dry or

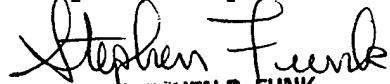
liquid toner particles. Additionally, appellant teaches on page 8 lines 19 - 20 in the specification that the instant invention may be used with either solid (dry) or liquid toner. Accordingly, there would appear to be no criticality in the selection of the type of toner, or, the selection of the toner would have been obvious to one skilled in the art.

Lastly, appellant argues that there is no motivation to remove the toner of Doyle after the printing run in view of the teachings of Raschke et al. However, reusing printing form substrates is notoriously conventional in the art to eliminate the obvious waste of discarding the printing forms. Reusing printing form substrates is well known and highly desirable in the art for both economical and environmental reasons.

**(14) Conclusion**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

  
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PRIMARY EXAMINER



REN YAN  
PRIMARY EXAMINER

Appeal Conference Conferee

  
Appeal Conference Conferee

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